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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,485	11/25/2003	Robert Weger	BOE01 040	4361

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EXAMINER

NGUYEN, TUYEN T

ART UNIT	PAPER NUMBER
2832	

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/720,485

Applicant(s)

WEGER, ROBERT

Examiner

TUYEN T. NGUYEN

Art Unit

2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/22/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 and 5-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Barrett [US 5,737,203].

Barrett discloses a toroidal structure [figure 3G] comprising:

- two separate identical toroidal cores [70, 72], wherein the toroidal cores arranged next to each other in such a way that their axes of symmetry are in line;
- at two working windings [60, 62, 64, 66] wound about the toroidal cores, wherein the working winding evenly distributed around the periphery of the respective toroidal core and connected in series; and
- a control winding [68] wound about the toroidal cores.

Barrett inherently discloses the windings, each formed from a single insulated wire.

Regarding claim 8, Barrett inherently discloses the working windings have essentially the same number of turns and identical wire thicknesses.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barrett in view of Schafer [US 2004/0140879 A1].

Barrett discloses the instant claimed invention except for the toroidal cores arranged in a common plane.

Schafer discloses a toroidal transformer comprising two toroidal cores [1, 2] arranged in a common plane.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to arrange the toroidal cores of Barrett in a common plane, as suggested by Schafer, for the purpose of reducing height.

Claims 3 and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barrett in view of Conway [US 5,012,125].

Barrett discloses the instant claimed invention except for the specific type of wires for the windings.

Conway discloses a toroidal transformer [figure 7] comprising a toroidal core [121] and at least one winding [131, 132] wound about the toroidal core, wherein the winding formed of litz wire.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use litz wire for the winding of Barrett, as suggested by Conway, for the purpose of providing shielding.

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The specific arrangement of the winding, connections of the windings, thickness of the wire of the windings would have been an obvious design consideration based on the intended applications/environment used and for the purpose of control the inductance.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gilmore et al. [US 6,617,950] ; Thuis [US 5,331,271] ; Shikano et al. [US 4,806,896]; Cirkel et al. [US 4,763,093] ; Brock [US 4,129,820] ; Bross [US 3,913,583] and Leppert [US 3,739,255].

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUYEN T. NGUYEN whose telephone number is 571-272-1996. The examiner can normally be reached on M-F 8:30-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ELVIN ENAD can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTN *TFN*

Tuyen T. Nguyen